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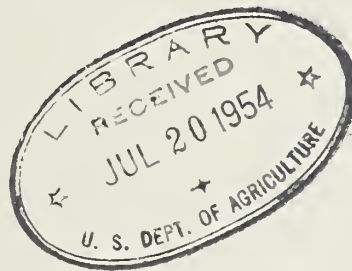
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WHOLESALE PRODUCE MARKETS of SAN DIEGO, CALIF.



**UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service**

**Washington, D. C.
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SUMMARY

In early 1953, at the request of the San Diego Chamber of Commerce, a study was made of the facilities and methods used in the handling of fresh fruits, vegetables, poultry, eggs, meats, dry groceries, and related food products at wholesale in San Diego. The territory served by wholesale food dealers in San Diego includes the city and bordering small towns in San Diego County.

The wholesale food market area in San Diego is located in the downtown section of the city. Nearly all wholesale dealers in fresh fruits and vegetables have stores in this area, which also includes several stores of wholesale dealers handling meats, poultry, eggs, and dry groceries. Many wholesale dealers in meats, poultry, eggs, dry groceries, and other food products have stores in other scattered locations in the city. All of the wholesale stores are privately owned; no facilities of any kind are operated by public agencies.

All fruit and vegetable dealers are greatly handicapped in their operations by inefficient and outmoded facilities. At the time of the survey certain dealers had plans for the construction of efficient facilities in new locations, but if such plans are carried out the remaining major segment of the business will continue to operate in the old inadequate facilities. Stores are not designed for low-cost operations. Only a few stores have rail connections, and these consist of tracks in streets from which packages are unloaded on sidewalks or streets from cars. In addition to hindering low-cost operations, the facilities make a poor appearance, are hard to keep clean and free from rodents, and, in general, are not in keeping with plans for an attractive downtown business district. In addition, the fruit and vegetable market area is located about 4 miles away from the center of distribution to retail food outlets, which lengthens aggregate hauls by trucks to those outlets.

With few exceptions, wholesale facilities in which meats, poultry, and eggs are handled are reasonably adequate. The most obvious deficiencies are associated with the crowding of facilities, brought about by expansion in volume of business without corresponding expansions in facilities.

Most wholesale dealers in dry groceries were operating in multi-story structures that had inefficient railroad connections as well as limited space for efficient truck operations.

Most wholesale dealers in fruits and vegetables recognized the need for more efficient facilities. In 1953 there was no concerted opinion among dealers in other food products that the use of existing facilities was a major handicap in their businesses, although individual firms expressed definite interest in any proposal that would lead to greater operating efficiencies.

To assist all interested groups in developing a long-time plan for a wholesale food market center, a layout for such a market center was made.

This plan recognizes the immediate need for new facilities for some fruit and vegetable wholesalers and provides space for the probable needs of dealers in other types of food products in the future. As the initial step in the proposed project, the construction of 15 wholesale fruit and vegetable store units, with appropriate driveways, rail connections, and parking areas, on an area of about $5\frac{1}{2}$ acres is suggested. It is probable that in the future at least 30 acres will be required to care for the needs of other wholesale dealers who will wish to occupy or construct new facilities on the site. The most advantageous location of such a development would be in the San Diego River Valley between the Pacific Highway on the west and the Cabrillo Freeway on the east. On the basis of 1952 building costs it is estimated that the structure consisting of 15 units for fruit and vegetable stores and the necessary additional facilities would cost \$337,074, including the cost of land. In order to pay for these facilities and the costs of operations it would be necessary to have a revenue of \$33,502 yearly. To assure this revenue the rental rates paid by dealers would be about \$1.10 per square foot of floor space per year or \$2,400 per unit. This rental rate is approximately equal to the average rental rate paid in 1953 for the existing inefficient facilities. With the new facilities in which to do business, dealers in fruits and vegetables would benefit to the extent of about \$49,000 per year in lower costs of loading and unloading cars and trucks. Consumers in San Diego would also benefit by having a better distribution system for fruits and vegetables. The city of San Diego would benefit by having the fruit and vegetable market in a new location, as it would make possible the development of the present market area into a modern business district more in keeping with progressive city plans. In the future, to the extent that other wholesale dealers would locate in the proposed market area, traffic movement on city streets would be simplified, and policing and sanitation regulations could be administered with less cost.

There are several ways in which a new market might be developed. Probably the two most advantageous methods would be by a public nonprofit corporation or a private limited profit corporation. A private limited profit corporation might be formed to function as land owner only, handling the acquisition of a site and plans for development. These plans could guide individuals, trade groups, or others wishing to lease or purchase land for the construction of facilities. It might be possible to consider the original segment of fruit and vegetable stores on $5\frac{1}{2}$ acres of land as a separate project at first, and to purchase the suggested additional 25 or more acres under separate contract, deferring payment temporarily.

It is highly probable that the lack of substantial interest by wholesale food dealers in a new market development in San Diego at the time of this study was the result of their having no specific plans available upon which individual firms could base their judgment. The development of specific plans would undoubtedly stimulate the interest and cooperation of many dealers.

WHOLESALE PRODUCE MARKETS OF SAN DIEGO, CALIF.

By Thew D. Johnson, agricultural economist,
Agricultural Marketing Service

DESCRIPTION OF AREA

The city of San Diego is in the southwestern corner of California on the Pacific Ocean, about 110 miles down the coast from Los Angeles, and less than 10 miles from the Mexican border. The metropolitan area of San Diego had a population of about 500,000 in 1953, and the population of San Diego County, including the city, was about 575,000.

The San Diego area is served from the north by a branch line of the Santa Fe Railroad, which terminates in San Diego, and from the south and east by a branch line of the Southern Pacific Railroad. The area is crossed by a network of good highways. The principal U. S. highways are U. S. 101 from north to south, U. S. 80 from the east, and U. S. 395 from the north-east. (See fig. 1.)

Rainfall in the area is not sufficient in the warm season to allow growth of intensively cultivated crops without irrigation. In 1950, according to the U. S. Census, 6,696 farms were operated in the county--the large dry-land holdings being operated as livestock ranches, and the small irrigated holdings, mainly in the flat valleys, producing crops. About two-thirds of all farms were irrigated, and the irrigated land on these farms averaged 12 acres.

WHOLESALE PRODUCE DISTRIBUTION IN THE SAN DIEGO AREA

Functions of wholesale produce dealers in San Diego are the same as those in other markets. Dealers receive products for resale and distribution to retail stores, restaurants, hotels, military establishments, and others.

Information on the volumes of products handled at wholesale in San Diego, methods of transport, wholesalers who handled them, and the manner in which they were received and distributed was obtained from wholesalers, buyers, and others. Observations were also made of the actual handling of the products in the wholesale establishments and the facilities and practices used.

Wholesale Fruit and Vegetable Dealers

About 20 wholesale fruit and vegetable dealers operate in the market area. Eight are licensed truckers who have stores on the market and who buy from country assembly and grading stations and producers and sell on the San Diego wholesale market as well as on the Los Angeles market. These trucker-dealers also haul from the Los Angeles market for wholesale distribution in San Diego. There are seven wholesalers who deal in specialized products, such as avocados, bananas, and citrus fruits, or who supply

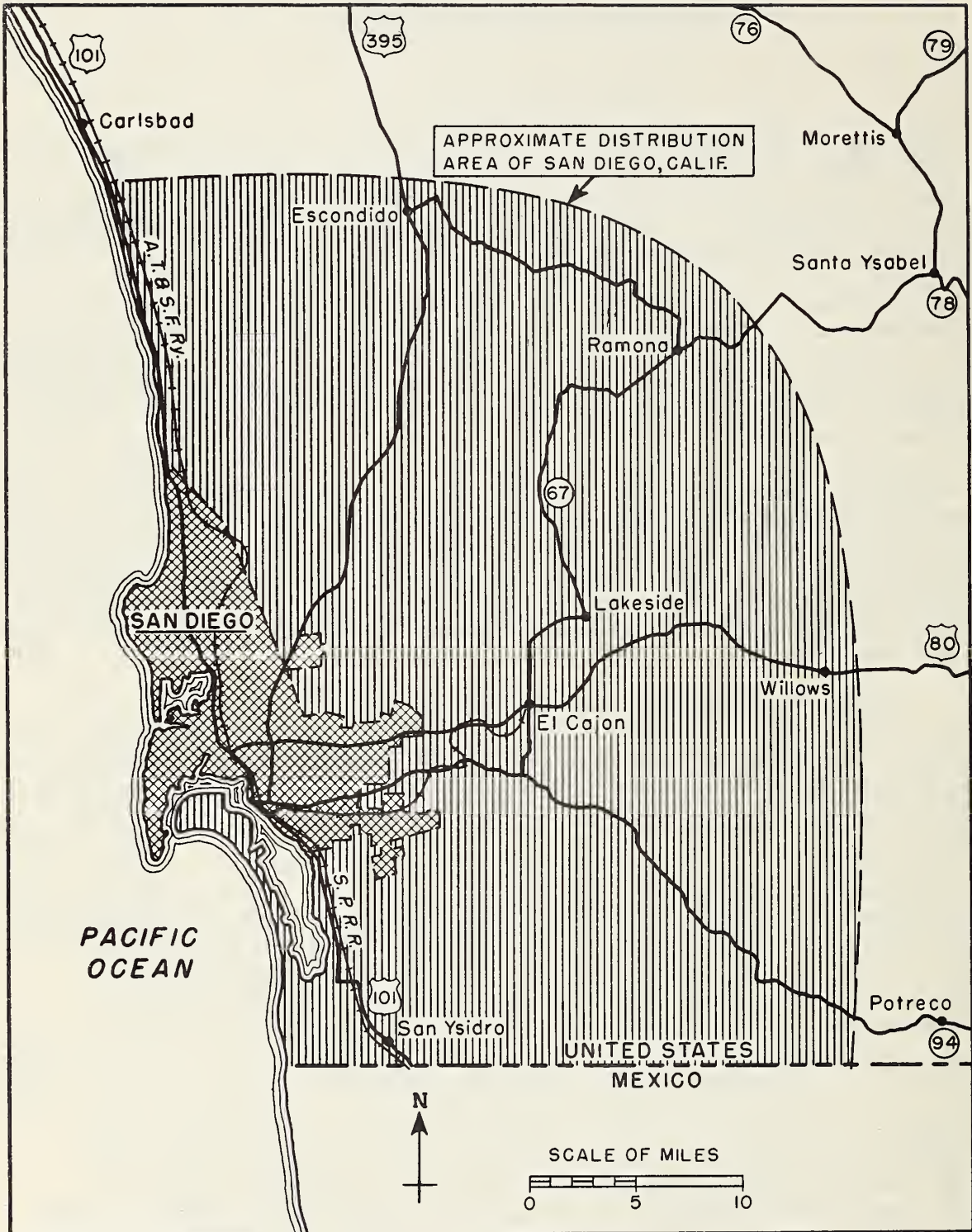


Figure 1.--Map showing the approximate distribution area, railroads, and principal highways of San Diego, Calif.

hotels, restaurants, institutions, commissaries, and other specialized demands. The remaining dealers are those mainly supplying retail outlets with a wide variety of fruits and vegetables. One chain store has a fruit and vegetable warehouse that operates as a distribution warehouse for fresh fruits and vegetables to their local stores and as a concentration point for fruits and vegetables produced locally, some of which move out of the area.

It is estimated that in 1952 about 9,500 carlot equivalents of fresh fruits and vegetables were distributed in San Diego through the wholesale market and chain stores. About 2,900 carlot equivalents were handled and distributed through facilities controlled by regional and national chain stores that had retail outlets in the San Diego area. The remaining 6,600 carlot equivalents moved through stores operated by independent wholesalers in the San Diego market area. Dealers estimated that the equivalent of about 2,000 carlots was purchased by the military forces, leaving an estimated 4,600 carlots for distribution to retail stores and other outlets in the San Diego area. These data do not include all the fresh fruits and vegetables distributed through retail channels and to consumers. A substantial but unknown volume of fresh fruits and vegetables moved directly to retail outlets from the Los Angeles market by truck without the use of any wholesale facilities in San Diego.

Practically all fruits and vegetables moving through San Diego wholesale channels originate in the Pacific Coast States or the Mountain States. Only a small volume comes from eastern areas, usually specialized items during a short period when no west coast production is available.

San Diego receives its fruits and vegetables from three sources. It is estimated that 15 percent of the total supply handled on the wholesale market originates in San Diego County, the wholesalers doing a large part of the hauling from country points of assembly or production. The bulk of wholesale supplies on the San Diego market is trucked down from the Los Angeles market. Wholesalers also get supplies in season from assembly and grading points in major producing areas in southern California. Most of the apples and pears come direct from Washington and Oregon, potatoes from counties farther north in California and from Idaho, and onions from Oregon. It is estimated that between 90 to 95 percent of all fruits and vegetables entering wholesale channels in San Diego arrive by motortruck. Apples, pears, bananas, and potatoes requiring long hauls are the principal fruits and vegetables shipped by rail.

Because it is necessary to grade fruits and vegetables near the points of production to prevent substandard or off-grade products from moving into consumption channels as fresh products, producers have found that assembly and grading stations, which are also shipping stations, are most feasible when located as close as possible to the farms where the production originates. The volume assembled at one country grading and shipping station from even a small number of farmers who produce one specialized product seasonally is usually quite large. The city of San Diego cannot absorb such

volumes as a consumption market. Los Angeles is the largest market for fruits and vegetables on the West Coast, and can handle large volumes at one time, either for distribution into population centers in the West, or for shipment to eastern cities. Therefore, most of the fruits and vegetables produced in San Diego County bypass the city of San Diego as far as any marketing transactions are concerned. The only products that come into San Diego are those that are to be consumed in or near the city.

Farmers do not act as wholesalers on the market, and there is no "farmers' market" in San Diego. Many producers in the country sell their fruits and vegetables to wholesale dealers in the city of San Diego. However, these fruits and vegetables must satisfy requirements as to grade and quality. Also, they must be in a volume that can be absorbed by the limited demand in San Diego and not demoralize the local prices. Groups of growers, most of whom produce in small volumes, have working arrangements with wholesalers in San Diego to supply such wholesalers with volumes of certain specialized graded products to meet current demands. Any excess production moves to Los Angeles.

Wholesale Meat Dealers

Five national packer branch houses and three slaughtering plants distribute the bulk of the fresh and processed meats to retail outlets in San Diego. One slaughtering plant is operated by a national meat packer and the other two are independent packers having plants in the San Diego area. Within the city, in addition, there are several meat processors and handlers of specialized types who cater to the freezer locker and home freezer trade as well as to hotels, restaurants, and institutions. One of the packer branch houses operates through car route salesmen and services orders directly from Los Angeles. Four of the packer branch houses, including one in the slaughtering business, carry on their receiving, storing, and deliveries from permanent facilities.

A substantial part of the meat and meat products arrives by railroad from the Middle West. Less-than-carlot shipments usually arrive from Los Angeles by truck. The wholesale distribution of meats and meat products in San Diego is essentially one of order-taking and delivery by the wholesalers; buyers do not visit the wholesale stores. A few specialized handlers and manufacturers of meat products, who serve select trades such as restaurants and hotels, buy their supplies from San Diego meat wholesalers. San Diego is on an import basis for meat supplies, as San Diego County produces a relatively small percentage of the total supplies entering wholesale channels.

Wholesale Poultry and Egg Dealers

The wholesale poultry and egg business in San Diego is handled by 16 dealers, including 1 large producer-cooperative organization. Seven of these dealers handle eggs only, four handle both poultry and eggs, and five handle poultry only. A high percentage of all poultry and eggs moving into consumption channels in San Diego is produced in San Diego County. San Diego

is known in the trade as a high-quality egg market. More than 600,000 cases of eggs moved through wholesale channels in 1952 in San Diego.

The wholesale distribution of poultry and eggs in San Diego is essentially a service wholesaling business, with the wholesaler making deliveries by truck. Certain meat wholesalers, especially packer branch houses, may handle eggs and poultry meat. Producers in San Diego County more nearly satisfy the current demands for eggs than for poultry meat. Substantial supplies of poultry meat, including broilers, originate in other sections of California and, at the time of the survey, small quantities were coming from the Middle West.

Other Wholesale Food Dealers and Handlers

Twelve wholesale dealers handle dry groceries in San Diego, in addition to the chain store warehouses that supply their own retail outlets. Four of these wholesale dealers are essentially in the dry grocery business exclusively; the remainder operate as handlers of specialties, which include dry groceries. Two local dry grocery warehouses are operated by national and regional chain stores to serve their retail outlets, and many retail stores that make large purchases are served directly from Los Angeles warehouses. Two large dry grocery firms operate "cash and carry" branches at different points in the city. One dry grocery firm, operating as a branch of a large firm in Los Angeles, does a service wholesaling business exclusively, making all deliveries to retail outlets from San Diego and Los Angeles warehouses. Some dry grocery firms also distribute frozen foods; one firm operates a frozen-food processing plant.

Three public cold-storage warehouses, one of substantial size, receive, store, and handle perishables for the produce trade in San Diego. These warehouses are used mainly for storing fresh meats, apples, and pears to be distributed by the wholesale dealers as fresh products, as well as fruits and vegetables to be processed into frozen-food packages. Such warehouses do not engage in the merchandising of these products.

DESCRIPTION OF PRESENT WHOLESALE MARKET FACILITIES

In this discussion the wholesale market area is considered that area between Market Street and Imperial Avenue from 3d Avenue on the west to 8th Avenue on the east. Nearly all independent wholesale dealers in fruits and vegetables carry on their businesses from stores within this area, the greatest numbers of stores being on 6th and Island Avenues. (See fig. 2.) Wholesale stores for dry groceries and frozen foods, meat processors and other specialized meat handlers, and wholesalers catering to the hotel, restaurant, and institutional trade are found within this area.

Public streets in this area are at intervals of about 200 feet in both directions, making city blocks about 200 feet square with no alleys. Streets are approximately 60 feet wide from curb to curb, with 12-foot sidewalks

Figure 2.---A map showing the wholesale market area, geographical center of retail outlets and team tracks in San Diego, Calif.

to building lines. Nonmarket through traffic east and west moves mainly on Market Street on the northern boundary of the area, and north and south through traffic moves mainly on Harbor Drive. The market area is between these two traffic arteries. Local city traffic moves both east and west and north and south within the market area, but a high percentage of market traffic occurs in early morning hours before nonmarket traffic becomes active. Railroad spur tracks enter the market area from the south, using the streets as rights-of-way. One spur track is on 7th Avenue extending up as far as Island Avenue. Spur tracks on Imperial Avenue on the south are used as team tracks for cars which cannot be spotted on spur tracks next to individual stores or warehouses.

Fruit and Vegetable Stores

Wholesale stores vary greatly in size, but tend to have a depth of either 100 feet or, on the end of blocks, 50 feet. Corner stores have an area of about 50 feet by 100 feet, and the use of 150 feet of sidewalks 12 feet wide. Stores in the center of blocks vary in width from 20 feet to 50 feet, with variable depth depending upon the depth of the stores on the other side of the block. As there are no alleys, stores have no rear entrances. Store structures are of various types, from old-type narrow two-story structures built to house other types of businesses, to somewhat flimsy corner structures enclosed on two sides with paneled wire doors that are lifted during working hours. Open ventilation of stores is a necessity because of the climate and this need for ventilation has tended to result in structures with makeshift doors, windows, and walls of unsightly appearance, because the old structures were not built originally to house a perishable-commodity operation. All operations are on one floor at sidewalk levels, and observations indicated that the space put to greatest use was the 12-foot sidewalks in front of the stores. In the entire area, one structure apparently had been built to house a fruit and vegetable store. It has a 16- to 20-foot ceiling to allow for ventilation and mezzanine offices. All its operations were at sidewalk level. Some small stores at the ends of blocks have less than 400 square feet of floor space.

The greatest activity in fruit and vegetable stores is between 4:00 a.m. and 6:00 a.m., when there is practically no pedestrian traffic and only a small amount of nonmarket vehicle traffic.

In San Diego, dealers handling a general line of fruits and vegetables tend to have less cooler space in proportion to their volume of business than dealers handling similar lines in many other markets. Stocks are acquired quickly from Los Angeles and assembly point markets, which decreases the need for cooler space for large stocks in storage in San Diego.

Wholesale Meat and Meat Product Stores

A few specialized meat handlers are located within the market area, but most of the meat moves through wholesale stores scattered about the city. Three packer branch houses are located within the downtown business

district. One slaughtering plant operated by a national packer, from which wholesaling is done, is located to the northwest of the business district within the city limits. Two wholesalers also doing a slaughtering business are located outside the city limits of San Diego. Packer branch house facilities in San Diego are similar to those found in other cities. All are of masonry construction and have railroad tracks, usually at the rear of the buildings. Car-floor height platforms receive the products coming from rail cars, and door openings to cooler and freezer rooms are easily reached from these platforms. On the opposite side of the structure are platforms about 45 inches high to which trucks are backed for loading and unloading. Hand trucks were used to move packages. Carcass handling and movement was done by overhead tracks. Truck movement was hampered somewhat by heavy traffic on the streets during certain hours. In general, the facilities used in the handling of meats allowed for reasonable efficiency in the use of labor.

Wholesale Poultry and Egg Stores

Wholesale stores handling poultry and eggs are widely scattered in the city. Only two dealers handling substantial volumes of poultry and eggs are located within the market area. One of these operates a large poultry dressing plant there. Many wholesalers of meats also handle poultry and eggs from their facilities, which were primarily set up to handle meats. Mainly because of the keen competition in the business, the bulk of the poultry and eggs moves through stores having comparatively efficient handling facilities. Establishments making their major incomes from handling poultry and eggs have been forced into low-cost operations with the use of modern labor-saving equipment, facilities, and practices. Platforms of truck-bed height are used for loading and unloading. Poultry killing plants in the county are tied in with good wholesale facilities in the city, collection of fresh eggs from farms is coordinated with efficient grading and packaging equipment and practices in the city, and the whole is integrated into a truck distribution system that, in general, allows for a comparatively low-cost operation for a unit of product. One of the firms carrying on large egg-handling and grading operations used pallets and jack-lift hand trucks. Some handlers of poultry and eggs also handle a general line of other products, such as meats, dairy products, and fresh vegetables, and mainly cater to specialized outlets and not to retail stores. The facilities used by these wholesalers in handling poultry and eggs are similar to the facilities of wholesale fruit and vegetable dealers described previously.

Other Wholesale Food Store Facilities

Located in the wholesale market district are 4 independent dry grocery warehouses and 1 that is operated by a national chain store. Most of the structures in which these operations are conducted are multiple-story buildings. These wholesale houses are served by railroads in the streets adjoining. First-floor store levels are near the floor level of railroad cars. No platforms are available to receive goods; unloading is done direct from car door to store door on long ramps. Unloading of cars with the use

of hand trucks when ramps were not too steep was the most efficient operation observed. Movement of packages inside buildings was by hand truck.

Truck-bed high platforms were available for loading delivery trucks. Goods were also received by transport trucks, which used truck-bed high platforms adjacent to the buildings. The amount of space available on the store lots for the movement and spotting of trucks was limited, and much of this was done in the streets. One relatively small dry grocery wholesale operation was performed on one floor, all receipts coming in by truck. In this facility, receipts were unloaded on one side of the building and loaded into delivery trucks from the other side; all operations were at truck-bed heights. This structure had no railroad siding; the business was a truck operation exclusively.

The structure housing the principal public refrigerated warehouse is multiple-storied, having railroad spur tracks on one side. Rail cars are unloaded onto platforms at approximately car-floor height and truck-bed high platforms are used for loading outgoing trucks.

MAJOR DEFECTS IN THE PRESENT PRODUCE MARKETING SYSTEM

Dealers in fruits and vegetables are carrying on their businesses in an area unsuited for the efficient movement of market traffic. The 60-foot streets in front of the stores are too narrow to permit right angle parking on each side and allow for an easy movement of traffic in the center. These narrow streets make parallel parking a necessity at many stores, which hampers efficient unloading and loading operations. Nonmarket traffic is hindered by market trucks. The absence of alleys, which could allow for truck entrances to stores at the rear, usually makes the loading and unloading of trucks from one entrance a crowded operation except for corner stores that have side street access.

The lack of platforms in the front and rear of stores makes the loading and unloading of trucks a high-cost operation. A relatively large amount of labor is necessary because labor-saving equipment such as hand or powered trucks can not be used effectively. In most cases each package must be handled individually from a truck bed to sidewalk and from sidewalk back to a truck bed. There can be no movement of several packages from truck direct to floor or cooler storage by mechanical means. In recent years substantial progress has been made in the development of efficient equipment and facilities for the movement of goods from one place to another, but the original construction of floors at street levels does not allow for the use of such equipment. In San Diego the cost of labor is comparatively high, and failure to use labor-saving equipment in handling fruits and vegetables contributes substantially to the comparatively high costs of dealer operations.

The lack of properly designed buildings leads to inefficiency in operations. Except at corners, the narrow frontage on most stores does not give enough space for parking trucks. Except in one store, the buildings were originally designed for other types of business and could be only

partially altered to suit the requirements of the fruit and vegetable business. Ceilings are usually too low, solid partitions and walls between stores stop needed ventilation, and most structures are difficult to keep clean. The dilapidated condition of some of the structures tends to make tenancy insecure, as prospective renters are reluctant to install adequate cold-storage rooms.

The lack of railroad tracks at the rear of wholesale stores is not so serious a defect as in other cities studied because of the high percentage of all receipts on the market which arrive by truck. However, a substantial proportion of potatoes, bananas, onions, and other commodities arrive by rail and dealers are obliged to unload from team tracks or cars spotted in the streets and incur the expense of an extra loading, unloading, and hauling operation. The question arises whether the inefficient facilities and high costs associated with rail car arrivals on the market have not caused the decline in rail car receipts.

The necessity for extra handling in inefficient facilities tends to increase package breakage and spoilage of fresh fruits and vegetables. The enforcement of sanitary regulations is hampered, rodent control costs are increased, and in general, the policing of the area and individual stores is more difficult and costly to the dealers and to the city.

The present wholesale market area is about 4 miles from the point where the distribution of fruits and vegetables to retail outlets could be made with the shortest aggregate hauls. Most in-shipments to wholesale stores are distributed to retail outlets from the market area in back-hauls over the same routes covered by the in-shipments. This increases costs of transportation and adds to the traffic flow on city streets.

The most serious defect apparent in the operations of wholesale dealers in meats and meat products was the lack of space in which to operate efficiently. Facilities of most dealers were reasonably well designed to service a given volume of business. Observations of day-to-day operations indicate that certain dealers were handling a volume of business that taxed the capacity of their facilities, which resulted in crowded operations. Room for efficient movement of large trucks was lacking. On most sites there is little room for expansion. Rapid increases in population and increases in volumes of meats moving through wholesale stores in the future may make new facilities necessary. The location of store facilities in the downtown section about 4 miles removed from the center of distribution to retail stores incurs higher transportation costs.

Defects in facilities for the wholesale movement of the bulk of the volume of poultry and eggs are not outstanding, and, in general, the facilities used by these wholesale dealers are good to excellent. Certain defects were apparent in the facilities used by some wholesalers, however. For example, one dealer was operating a killing and packing plant within the city limits where the enforcement of sanitary requirements necessitated comparatively higher costs. Increases in the volume of business resulted in crowding

operations into too small an area, and there was no room for expansion of facilities.

Defects in facilities used by wholesale dealers in dry groceries were mainly: (1) Lack of space in which to load and unload trucks efficiently; and (2) lack of spur rail tracks close enough to structures to allow for efficient unloading practices, coupled with the absence of unloading docks along certain structures. Observations in other cities indicate that nearly all new dry grocery warehouses are on one floor only, which is conducive to the use of mechanical equipment. A large part of the dry grocery handling in San Diego is in multiple-story buildings. Competition in the business may eventually require that one-story structures be used. Land area occupied by existing structures would be much too small for efficiently designed one-floor structures.

A POSSIBLE LAYOUT FOR A NEW WHOLESALE FOOD MARKET

Any plans for the development of central wholesale market facilities should give adequate consideration to building sufficient facilities to meet present needs and providing space for future requirements of the wholesale food industry, including all types of dealers in food and related products. The market should be so planned and designed that at any time in the future more buildings may be constructed, additional streets and railroad tracks provided, and utilities installed. These additions to the original installation should fit a well-planned and efficient pattern.

San Diego will probably continue to expand in population in the future. The penalties associated with the use of inefficient facilities will increase as population increases, because of the larger volumes of foods that will move through such facilities to supply the larger population.

In planning for efficient market facilities, consideration should be given to the consolidation in one area of wholesale dealers in fruits and vegetables, poultry and eggs, meats and meat products, dairy products, dry groceries, and other food products. In 1953 certain fruit and vegetable dealers had plans well advanced for construction of new facilities for themselves. The remaining dealers, however, will continue to carry on operations in the present inefficient facilities.

Wholesale dealers in meats and meat products, poultry and eggs, and dry groceries either were using good facilities or were operating from individual types of facilities representing substantial investments. This situation, in general, tended to lessen the advantages of relocation in new facilities or to make them impractical for the individual firms. As stated previously, the principal defect in their facilities, especially certain meat dealers, was that their volumes of business tended to be increasing without any corresponding increases in facilities. It is probable in the future that increases in volumes of business and changes in methods of distribution will make it obvious to some such operators that they must use larger and more efficient facilities to decrease costs.

Well-designed facilities and equipment in the long run make possible the lowest costs in handling, storage and distribution, whether the commodity be fruits and vegetables, meats, dry groceries, or any other. Therefore, in the interest of promoting low-cost distribution of food products, it could become of substantial importance to the city and county to have practical general plans that can serve as a guide in the possible development of a wholesale food marketing center. The following discussion is concerned, therefore, with: (1) The physical facilities needed at present by those fruit and vegetable dealers in the present market who will apparently remain there after certain dealers have acquired new facilities in other locations, and (2) possible facility needs of other types of food wholesalers in the future.

Stores for Fruit and Vegetable Dealers

It is estimated that one 1-story warehouse type of building about 96 feet deep, including platforms, and 345 feet long would be needed to handle the volume of fruits and vegetables handled in 1952 by the dealers who are at present not affected by the impending movement to new facilities. The building should have a covered platform 24 feet wide in front and at least 12 feet wide at the back, which would leave 60 feet between the front and back walls. This building should be built so that partitions could be placed at intervals of about $22\frac{1}{2}$ feet to permit individual firms to have the amount of space they need. The building would contain a total of 15 units, but these units should not be built until firm commitments to use them have been obtained from responsible tenants. The front platforms should be about 45 inches above street level, which is about the average height of truck-beds. Rear platforms should be about 55 inches above street level, which is approximately the height of floor racks in refrigerator cars. The roof over the front platform should extend beyond the edge of the platform for protection during loading and unloading, and should be at least 14 feet above street level to allow for truck clearance.

The ceilings of the building should be approximately 18 feet high so that mezzanine office space may be installed at a height of at least $8\frac{1}{2}$ feet above the first floor level, leaving space for office ceilings of about $8\frac{1}{2}$ feet. Access to the office space should be by stairway. The needed office space, as determined by the individual wholesaler, can be constructed by spanning the $22\frac{1}{2}$ feet by beams at the necessary points. Usually it is found most practical to have mezzanine office space at the rear of the buildings so that the front half of the store may be observed from the office windows. Rest rooms could be installed on the mezzanine floor. Doors, either one unit or two units, should be of lightweight construction with large panels of steel fencing or mesh or other appropriate material. These doors should be hung so that they can be swung overhead and the entire space at the front and rear of the store kept free from unnecessary impediments to the free movement of personnel and wheel-type equipment. The types of doors and the 18-foot ceilings in the stores also allow maximum ventilation, a requisite in the climate of San Diego. Steel fencing could be used to enclose the store in front and in the rear.

Double spur tracks should be located at the rear of the building. A refrigerator car averages about 45 feet in length. Therefore, for each two units of store space of $22\frac{1}{2}$ feet two rail cars could be spotted on the two tracks for unloading either onto store platforms or directly into trucks, or a total of 16 cars at the building. The paving in the rear of the stores should be on the level of the tops of the rails to allow the use of platform space for trucks when rail cars are not spotted.

In addition to floor space adequate for operations, individual wholesalers may need certain types of equipment and facilities to handle individual commodities. Ripening rooms for bananas, packing rooms for fresh tomatoes, cooling space for storing, and other needs can be determined only on the basis of the individual operation of a particular wholesaler. Therefore, because of these different needs of individual wholesalers, it usually has not been found economically feasible for the agency building the market to equip each store with such types of facilities. The exact requirements of the individual users of the space dictate the needs for equipment, and it is desirable that the user install his specialized equipment needed in his business. These determinations should be made prior to the construction of the building and at the time leases are drawn for the space.

A design for a wholesale store building as described above is shown in figure 3. In the warm climate of San Diego any plans for the placement of solid partitions between store units should be examined with respect to their interference with the free movement of air for ventilation.

Each store unit would have inside dimensions of 60 by $22\frac{1}{2}$ feet, with dock or platform space 24 feet in front and 12 feet in the rear, or a total of 2,160 square feet of operating space. There would be a total of 32,400 square feet of operating space in the 15 units in the building.

Stores for Wholesale Dealers in Poultry, Eggs, Meats and Meat Products

At the time of this survey, most wholesale dealers in poultry, eggs, meats, and meat products were using facilities that were reasonably efficient, and hence were not interested in new facilities. Very few dealers were operating with structures or equipment that could be classed as grossly inefficient in handling, storing, loading, and unloading. The delivery of these products to purchasers' stores or other outlets were a part of the services rendered by the wholesalers. In the future the volumes of all of these products to be handled by wholesalers probably will increase to satisfy the demands of the increasing population. New firms may wish to enter the business, and existing firms may wish to distribute from better facilities in more advantageous locations. Therefore, it is possible that in the future a specific need may arise for new facilities in a good location.

Any overall plan for a food market center, therefore, should include sufficient space to allow for the construction of wholesale stores for meat

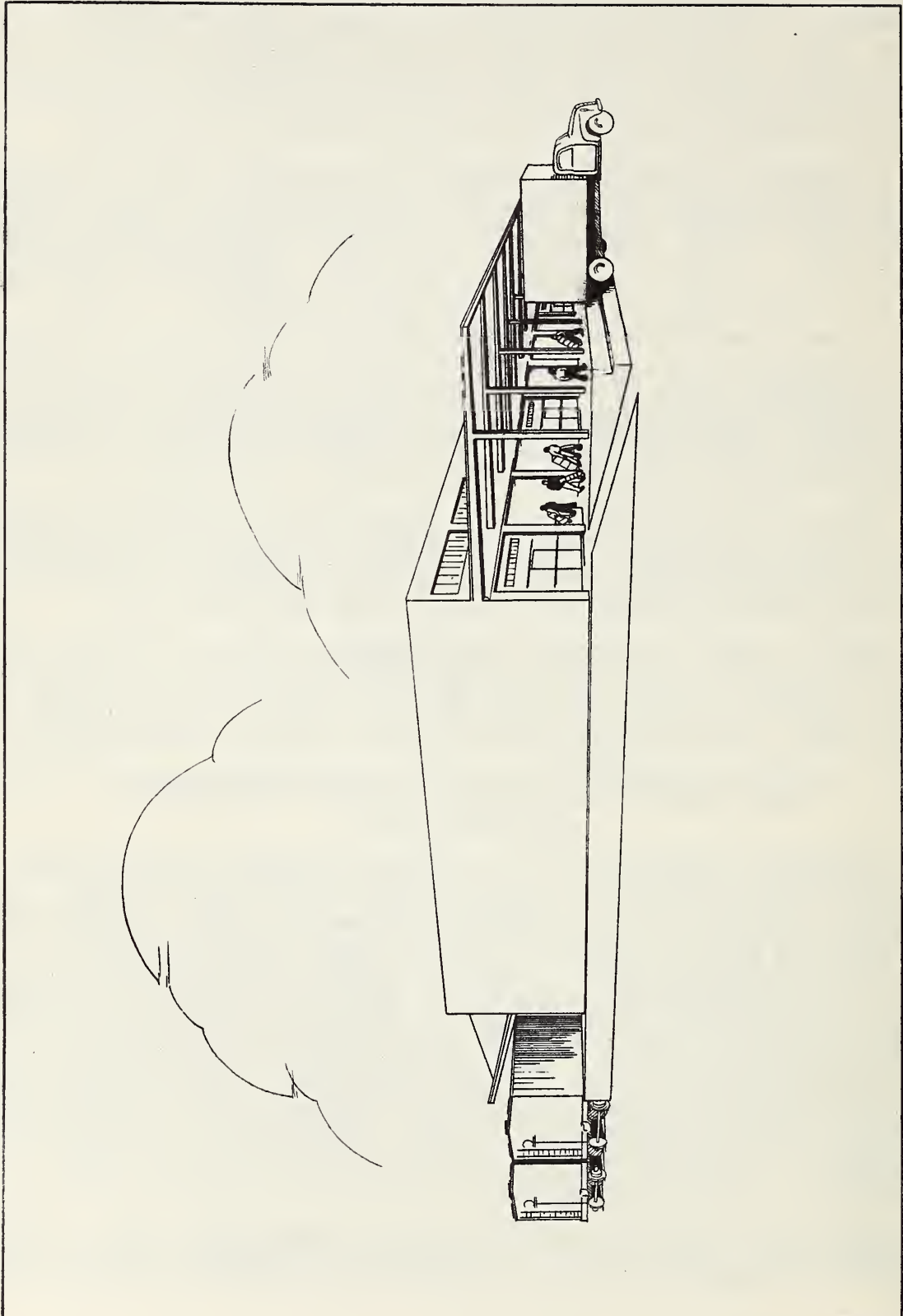


Figure 3.--Design for a wholesale market building.

handlers and dealers in poultry and eggs. The buildings containing these types of stores can be of the same general design as those for handling fresh fruits and vegetables. Because of the possible use of a greater amount of refrigerated space usually necessary in meat stores as compared with fruit and vegetable stores, it is probable that the inside depth of the stores should be increased from 60 to perhaps 72 feet, making one unit $22\frac{1}{2}$ feet by 72 feet. These 12 feet could be secured by making the front platform 12 feet wide instead of 24 feet, as in the fruit and vegetable stores. Also, meat stores will need rail connections similar to those for fresh fruit and vegetable stores.

It should be recognized, with respect to wholesale meat stores and poultry and egg stores, that because of the character of the business carried on by individual dealers, the demands for refrigeration space, and unloading space, may vary substantially between dealers. A packer branch house with its wide range of perishable products may need facilities quite different from those of a wholesale handler of meats only. In many instances, therefore, this need for specific facilities results in the construction of buildings and installation of equipment best suited to fit these particular needs. Usually such firms build their own facilities. However, the overall economic advantages of low cost distribution associated with proper facilities in the most advantageous location where market traffic can move freely, are the same for meat handlers as for fruit and vegetable dealers.

Dry Grocery Stores and Refrigerated Warehouses

In most instances it is probable that the demands of firms engaged in the dry grocery and refrigerated warehouse business will result in the construction of buildings suited to their individual needs. In recent years a trend has been evident for new buildings for these purposes to have one story, all operations being carried on at one level. Should this trend continue, it may be anticipated that new wholesale dry grocery and refrigerated warehouses will require much more ground space than has been usual in most old structures. In the long-time plans for a food market center, it would probably be prudent to allow substantial acreage upon which these types of wholesale facilities could be constructed. Refrigerated warehouse operations are usually concerned with the storage of vegetables, fruits, meats, and other perishables handled by wholesale dealers and processors. In recent years many dry grocery firms have moved into the frozen food business. Therefore, because of the relationship of the various types of businesses to each other, it has proved advantageous to have their physical facilities as close together as possible.

Rail Connections to Stores and Team Tracks

Two railroad tracks should be laid parallel to the rear platform of the 15 store units for fruit and vegetable dealers. The center of the inside track should be about 8 feet from the edge of the platform. This trackage will allow for the placement of about 16 cars at any one time.

Most dealers are not carlot receivers at present, but it is probable that on a new market several dealers will be carlot receivers. The placement of rail tracks at the rear of the building with the street pavement at the height of the rails will not interfere with truck parking or movement. The advantages of rail connections to all stores increases their potential value to carlot receivers who must have such connections. In the original construction it will cost very little more to have tracks behind all stores than behind only a few stores. All products arriving by rail should be unloaded from cars onto the platforms at the rear of stores.

It may come about that a dealer at one time may not have sufficient trackage at his store to accommodate his rail receipts. It is possible also that a carlot receiver of certain commodities may not occupy space in the market building. For these reasons it would be advisable to include in the plans team tracks behind the stores parallel to the house tracks but separated from them by a wide street so that there can be a free movement of trucks at stores and team tracks. The construction of these team tracks can be delayed until they are needed.

Streets and Parking Areas

Those streets that will serve the stores to be built first should be paved, including the necessary streets for entering and leaving the market area. Streets at the ends of the store buildings should be wide enough for the free movement of long trucks, or at least 70 feet. In the event that two buildings are constructed on opposite sides of one street, a width of 140 feet between buildings would be advantageous.

One of the major difficulties in doing business in the present wholesale area is the lack of adequate parking space for the trucks and cars of dealers, employees, buyers, farmers, truckers, and other people doing business on the market. In planning a new market, streets should be laid out to allow for parking, and special parking areas should be located at convenient points in the market so that there will be no interference with market traffic. It is estimated that the amount of business done in the 15 units of wholesale fruit and vegetable stores would create a need for parking space for around 100 vehicles of all types. Any plans made for the construction of stores of other types should include adequate parking space for the various types of vehicles needed for those kinds of businesses.

Fencing

The entire market area should be so planned that no public streets cross the area so that the only traffic will be that necessary in the operation of the market. With the entire area under one control, the enclosure of the area by a durable fence is advisable. Appropriate entrance and exit gates are necessary and the gates should be locked when the market is closed. The fence and gates will greatly assist in the control of traffic, prevent unauthorized use of the market area, prevent theft, and in general make the policing of the market an easier job.

Space for Expansion

The need for 15 wholesale fruit and vegetable store units in 1953 has been discussed. The need for new facilities for the use of wholesale dealers in meats and meat products, and poultry and eggs, is not so pronounced. Experience in other cities where new and efficient facilities have replaced inefficient ones indicates that after a new market begins to operate the efficiencies brought about by the new facilities leads to new demands for similar space by other dealers. With an expanding population in San Diego, this demand for more space may come from existing firms or from new firms entering the business. With the successful operation of the originally constructed facilities, many wholesale food handlers of all types tend to recognize the substantial economies possible in the use of efficient facilities in an advantageous location. Therefore, in the original planning of a market area adequate space should be allowed for the eventual installation of facilities for the use of wholesalers of all types of food products.

Demands may arise for space in the market area by service stations, garages, container distributors, and various other types of enterprises to render service to the market and its business operations. Consideration should be given to these types of possible eventual demands.

Generally speaking, experience in other cities indicates that the objective of having a well designed wholesale market center in a community can be seriously jeopardized by providing too small a space in which such a market center can operate efficiently. Usually, it has proven prudent to acquire control of a much greater amount of land area than there is a determined need for originally.

Arrangement of Facilities on the Market Site

The shape, topography, and other physical features of the site selected for development will be factors in the final plan for the arrangement of facilities. The location of major streets and highways near the site, and the direction from which the railroad will enter the site will also affect the plan. The 15-unit wholesale store building and its adjacent house tracks, streets, and parking areas discussed previously have been placed upon a site in order to illustrate certain principles to be followed in planning a market center. This layout is shown in figure 4.

In this layout the structure and facilities needed for modern wholesale fruit and vegetable stores cover an area of approximately $5\frac{1}{2}$ acres, about 600 feet long and 400 feet wide. In the future, if fruit and vegetable dealers need additional store units, they should be constructed in line with the original units. However, the units should be separated, as shown, in order to give easy access to the rear of stores and to team tracks.

The railroad tracks enter the market area at one corner and are placed on one side so that truck traffic will have minimum contact with rail traffic.

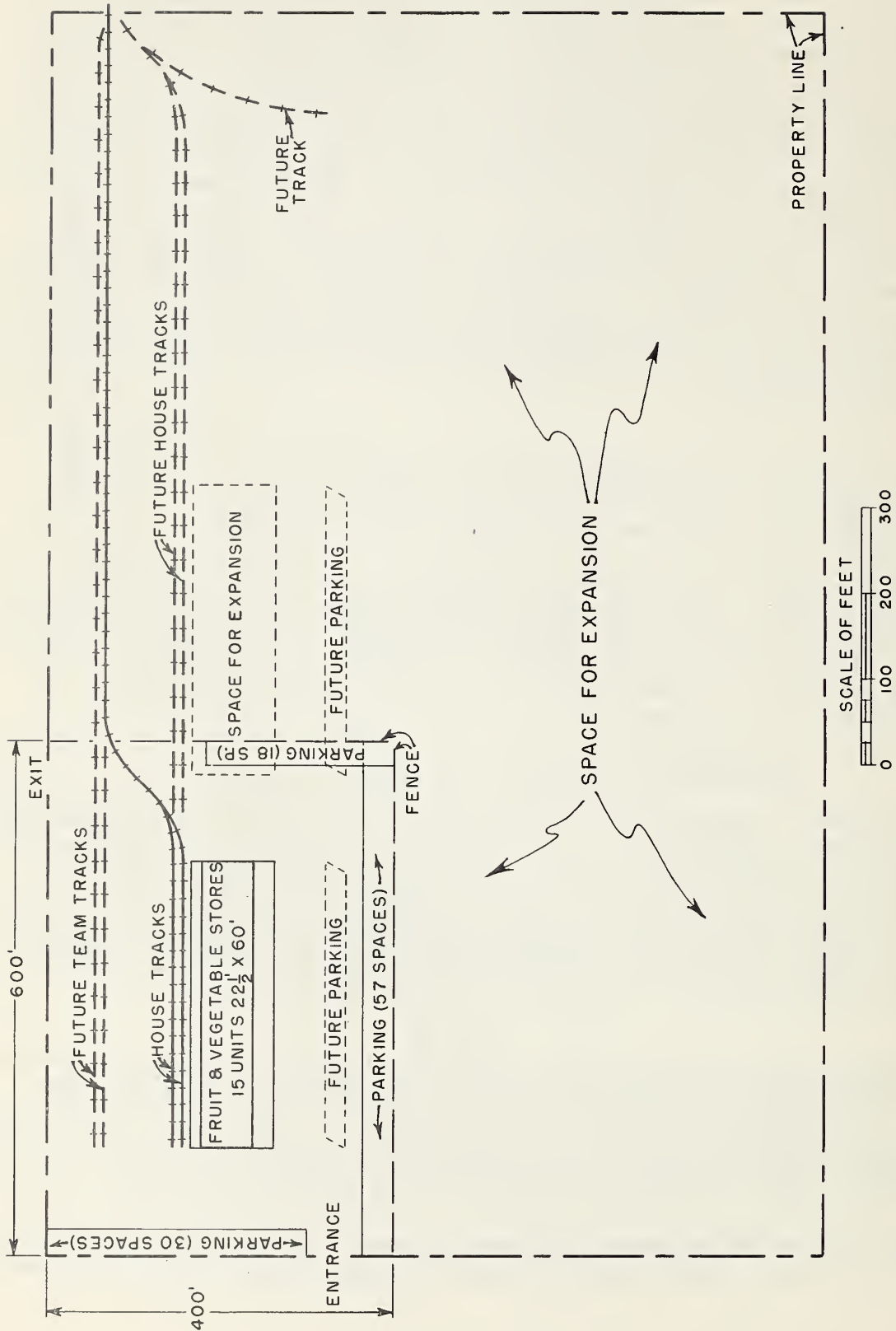


Figure 4.--Possible arrangement of facilities on a site, with areas for expansion.

The layout shows double spur track connections to all fruit and vegetable stores. Team tracks, located behind the house tracks as near as possible to the stores but leaving ample space between for the movement of trucks, are shown on the plan but their construction at this time is not suggested.

A street 140 feet wide is shown in front of the fruit and vegetable stores. This width allows parking space for trucks and other vehicles along the edge away from the stores as well as ample space for the movement of semitrailer and trailer trucks used in receiving and delivering. Any future construction opposite the fruit and vegetable stores should be at least the width of this street away from the fruit and vegetable stores.

The main entrance to the market should be from the principal street serving the market and that entrance should be near the stores so that trucks going to and from them will have a minimum of travel through the market. If the adjoining streets allow, an exit from the market area would be desirable on the team track side to allow trucks to leave the rear of stores and the team tracks without using the street in front of the stores.

In this layout, areas for future expansion are indicated. It is highly desirable that those structures needed by each type of wholesaler be grouped together. Space should be allocated in the layout so that eventually all fruit and vegetable stores will be located in one section of the area, meat stores in another, dry groceries in another, etc. The indiscriminate construction of facilities of one type adjacent to other types of different design and use leads to traffic congestion, unsightly appearance, less service to buyers visiting the market, and, in general, tends to decrease operating efficiency.

In the layout, a fence encloses the market area. The original facilities could be enclosed with the fence, and as new structures are added to the market appropriate segments of the fence could be moved.

With the original construction of the suggested 15 stores for wholesale fruit and vegetable dealers, it is noted that no provision is made for office space for a manager. With this small number of stores, the project could be managed as any other rental property, and the employment of a full-time manager would probably not be economical. Maintenance and repairs could be done by firms doing this kind of business. However, when more facilities are added a manager may be necessary. Collection of rents, regulation of traffic, supervision of maintenance, collection of refuse, enforcement of regulations, and general policing of the market area may eventually be most economically handled by a full-time manager. With the addition of more facilities than the original 15 fruit and vegetable store units, space for a manager's office should be considered. As the number of people either working in or visiting the market increases, it may become necessary to provide space for a restaurant, public rest rooms, etc. At that time consideration should be given to the demands for office space from business firms who may wish to locate near wholesale food operations. Brokers of various types of food products, representatives of food manufacturers

and processors, representatives of container and equipment manufacturers, salesmen, and other interests may create a demand for office space that could make the construction of a building for that purpose economically feasible. Space for these types of services has not been provided for in the proposed original 15 units of fruit and vegetable stores.

SELECTION OF A SUITABLE MARKET LOCATION

The location of a new market site is of major interest to the following groups: (1) Dealers, warehousemen, and other types of food handlers who would use the facilities in the market; (2) buyers who go to the market for their supplies; (3) producers who either truck or ship their products to the market; (4) transportation agencies who move products into or out of the market; (5) the city of San Diego, as the location of the market center fits into street and highway development, control of traffic, zoning, and other long-time planning for an increasing population; and (6) consumers in San Diego, because the proper location is necessary for the most economical distribution.

In considering the most suitable location for a market, the following factors are of major importance.

Convenience for buyers and distributors. Practically all perishable products handled by wholesale distributors in San Diego moves into retail channels within the San Diego area. These retail outlets are located essentially in those sections having the greatest number of consumers. The ideal location for a wholesale market to serve these local retail outlets (including military docks, which can be considered as retail outlets) would be at a point that averaged the shortest distance from all these outlets. From the location of existing retail outlets in 1953 in the San Diego area, it was found that this central point would be on the south edge of the San Diego River Valley, about 1 mile east of the Pacific Highway. (See fig. 2.) Distances to retail outlets in La Jolla, Pacific Beach, and Mission Beach to the north and west, Ocean Beach to the west and southwest, National City and Chula Vista to the southeast, and the outlets to the east in La Mesa and El Cajon, in addition to the outlets in the immediate areas to the east, north, and west of Balboa Park, were all considered in establishing this central geographic point. The growth of the city of San Diego has been to the north and east, and in the opinion of officials, will probably continue in these directions. This calculated center of retail outlets is approximately 4 miles north of the present wholesale market area. If a wholesale market center were located at this calculated center, distribution to retail outlets could be made with the shortest total distances to such outlets. Also, buyers from retail outlets who visit the center, would, in the aggregate, travel the shortest distances.

Convenience for receipts by motortruck. In 1952 more than 90 percent of all fresh fruits and vegetables, all poultry and poultry products, and about 75 percent of all meats and meat products were received in wholesale

establishments in San Diego by motortruck. It is estimated that more than one-half of the volumes of dry groceries were received by motortruck. Therefore, a wholesale marketing center must be selected that has easy access by good highways from the directions from which supplies arrive on the market. Fresh fruits and vegetables arriving in San Diego come mainly from Los Angeles and shipping points to the north and east. Very few come from the south and southeast. Most of the meats and meat products and dry groceries received by motortruck come from the north. Supplies of poultry and eggs originate mainly in San Diego County to the east of the city. Therefore, a market center must be within easy access by highway from the north and east. The suggested location can be reached conveniently from the east by U. S. Highway 80 and Mission Valley Road, from the north-east by U. S. Highway 395, and from the north by U. S. Highway 101 and Mission Valley Road.

Convenience for railroad receipts. Fresh fruit and vegetable receipts by rail are mainly bananas, apples, pears, and long-haul late potatoes, and make up less than 10 percent of the total volume of receipts. Meats and meat products received by rail total about 25 percent of all such receipts. Rail transportation is necessary to dry grocery wholesalers. Therefore, although motortruck receipts are greater than rail receipts in all lines of wholesaling, any market site must have convenient access by railroad. It is possible in the future that as total receipts of various lines of food products increase in response to increases in population, the proportion of rail receipts may increase above that of 1952.

Nonmarket traffic. The receipt and distribution of all types of food products by truck necessarily brings about a substantial amount of traffic on streets and highways. It is desirable, therefore, that a market center be located in an area as free as possible from nonmarket traffic, and where nonmarket traffic may be excluded from the market center without impeding the movement of such traffic.

Availability of land at reasonable cost. In the development of a market center, the total cost of the facilities and the land upon which they are constructed will have a great influence upon the rental income necessary to amortize the investment. A well-planned market center involves the use of many acres of land. Unless the cost of land is reasonable, rental charges may be so high that individual firms cannot afford to use the new facilities.

Cost of preparing site for construction. The costs of land leveling and drainage must be considered as a factor in site selection. If the preparation of land for construction involves leveling operations or expensive installations for drainage, these expenses must be included as investment costs of the project.

Possible Market Sites

Various sites in San Diego were examined with respect to their possible suitability for the location of a food market center, using the criteria

indicated above. The present downtown market area must be ruled out because it is too small, is far removed from the calculated center of distribution, and is too close to other downtown unrelated business activity. Even if it were possible to acquire the site, the cost would be prohibitive.

Sites were examined in the southeastern and eastern section of the city approaching and over the city boundary in San Diego County. These sites were much farther removed from the center of retail distribution than is the present market area, have no railroad facilities, were too small, would involve costly cross-city back-hauls, and in general, were relatively unsuitable.

Waterfront land in the city even if available, probably would not be desirable, because the wholesale food business uses practically no water transportation, and could be acquired only at an extremely high cost.

After an evaluation of many sites was made, the conclusion was reached that the most desirable location for a market site would be in the Valley of the San Diego River at a point between the Pacific Highway on the west and the Cabrillo Freeway on the east. This area is reasonably close to the center of distribution to retail outlets, has access from the north and east by good highways over which produce is transported into the city, and is in the direction of the greatest growth in population. Open, undeveloped land was available in the area in 1953, and could be purchased at a cost not prohibitive for a market development. This location could be served by a spur railroad off the main line of the Santa Fe Railroad, which parallels the Pacific Highway on the west. No other site could be found that had railroad connections that satisfied even to a reasonable degree the other requirements of a market site. The suggested location also has the least amount of hilly topography, which would result in relatively lower costs for leveling and filling the land.

No judgments are made in this report as to the exact location of a specific tract of land upon which market facilities should be constructed. The population of the city is expanding so rapidly, public and private demand for land is so pronounced, and the transfer of land from one owner to another for various purposes is so rapid, that a detailed determination concerning a particular tract would probably be valueless as a guide in future acquisitions. By the time the project is promoted to the point where the acquisition of land becomes possible, conditions with respect to current ownership, values, and uses would possibly eliminate any particular parcel from consideration. When it can be anticipated that the acquisition of land will become the next step in the development of the project, available sites should be further examined on the basis of their suitability, using the criteria explained above. The San Diego River Valley contains the largest tracts of undeveloped land in the city, and from the standpoint of location for a market development is outstanding compared to other possible areas. The location of a market site up the valley above the Cabrillo Freeway would not be a serious displacement.

The cost of railroad connections to this area would be higher but in other respects this location would be reasonably suitable.

A market can operate most efficiently on one ground level, with only enough slope for good drainage. Much of the land in the city and surrounding area is rolling to hilly. The selection of a site requiring the least cost for leveling operations is of major importance in San Diego. Some sites were favorable in certain aspects, but the obvious costs of leveling and filling would be so great that the final cost of the leveled site suitable for construction of facilities would be prohibitive.

Acreage Needed for Market Development

The land area needed for new facilities for fruit and vegetable wholesalers comprises about $5\frac{1}{2}$ acres. The amount of land that might be needed to provide space for all new facilities in the future is conjectural. Certain types of dealers who also are processors may not find it desirable to locate in the area. It is not possible to estimate accurately how many individual wholesalers will decide in the future that new facilities are essential to the efficient operation of their businesses. If all wholesalers of all types of food products were to have adequate facilities in one area, the space necessary to service a population the size of San Diego would approximate at least 50 to 60 acres. In recent years, individual one-floor warehouses to service many retail outlets have occupied up to 10 acres of space per unit. It is suggested, therefore, that consideration be given to the acquisition of a minimum of 30 acres. It is probable that 30 acres will be inadequate within a few years after the development of the fruit and vegetable stores on the $5\frac{1}{2}$ acres. Experience in other cities indicates that if control of the larger acreage is not secured in the original acquisition, the opportunity to secure the additional acreage at reasonable cost quickly disappears. The financial stability of the entire project can be furthered by the increased land values associated with the successful operation of the first unit of facilities.

MARKET DEVELOPMENT COSTS, OPERATING EXPENSES, AND SOURCES OF REVENUE

The estimated costs of construction of the market building, rail connections, paving, sewers to serve the building and paved area, fencing, and other necessary costs are shown in table 1. These estimates are based on the costs of labor and materials in southern California in 1953, and are not intended to be a substitute for contractors' bids based upon detailed final market plans and specifications. Costs for land, leveling, or filling are not included. These additional costs may or may not be substantial.

Table 1.--Estimated cost of market structure and facilities for a new wholesale produce market in San Diego, Calif., 1953

Facility	Size of unit	Total units	Estimated cost per unit	Estimated total cost
	Feet	Number	Dollars	Dollars
Stores	22 $\frac{1}{2}$ x96	15	13,300	199,500
Paving.....sq. yd.	-	12,000	3.00	36,000
Fencing.....linear feet	-	1,980	3.50	6,930
House tracks.....linear feet	-	1,000	8.50	8,500
Water lines.....linear feet	-	600	3.00	1,800
Sanitary sewers..linear feet	-	750	2.00	1,500
Storm sewers.....linear feet	-	500	3.00	1,500
Subtotal				255,730
Architectural and engineering fees - 6 percent				15,344
Total				271,074

Inquiry was made concerning probable cost of land in the area east of the Pacific Highway in the Mission Valley. Estimates ranged from \$5,000 to \$20,000 per acre, depending upon the size of the holding, its nearness to a good highway, nearness to the railroad, topography, etc. For purposes of this discussion, the assumption is made that land could be purchased for \$12,000 per acre. For the approximately 5 $\frac{1}{2}$ acres needed in the initial development of fruit and vegetable stores, an investment of \$66,000 for land would be necessary. Of course, as previously stated, more land should be purchased if a market is to be constructed.

With a development cost of \$271,074 and a land cost of \$66,000, the total investment would be \$337,074.

Amortization of Investment

It is assumed that the market revenue must be sufficient to make the entire project self-liquidating, including the amortization of the investment. The suggested market facilities, given reasonable maintenance, will have a long life. The facilities are so designed that they may be used, with certain alterations, by different types of wholesalers. Future appreciation in land values in San Diego would lend a degree of long-time stability to the financial soundness of the investment. Because of these factors the length of the amortization period could be extended over a period of 25 years. Based upon a 25-year period, at 4 percent interest, the annual amortization payment for the investment of \$337,074 for the facilities and 5 $\frac{1}{2}$ acres of land would be \$20,576.

Disregarding the fact that the type of ownership, whether public or private, might affect the amount of taxes paid, such taxes were estimated on the basis of private ownership. On the basis of taxes paid in 1952 on property in San Diego it is estimated that the annual tax rate on the development would be approximately \$8,000.

It has been estimated that with the original units for fruit and vegetable dealers operating, a full-time manager of the market would not be necessary. Property supervision and collection of rents could be placed with an agency that would perform these services for 5 percent of the rentals collected. Policing could be done by the city, as well as garbage and trash collection, as applicable currently to private enterprises. Yearly maintenance of market structures and streets are estimated to amount to about 1 percent of the total cost of these facilities, or \$2,711 per year. Lighting and water could be paid for by the individual stores. Insurance covering the structure would be approximately \$475 per year, based upon 1953 rates on this type of building, furnished by insurance companies. The total estimated yearly expenses, therefore, would be as follows:

	<u>Dollars</u>
Amortization payments	20,576
Taxes	8,000
Maintenance and upkeep	2,711
Insurance on structure	475
Management of property (5 percent of rentals)	<u>1,800</u>
Total	33,502

Revenue

Income received from rents would be the only revenue to be initially received from operations of the market. The yearly cost of operations as shown above would be \$33,502 and the yearly income must equal this cost if the project is to be self-liquidating. In the 15 store units there would be 32,400 square feet of floor space and platform space, or 2,160 square feet of operating space in each unit. If each of the store units were rented for \$200 per month or \$2,400 per year, the rental income would be \$36,000 per year. Such income would pay the above-estimated expenses and amortized payments, and leave about \$2,500 yearly to be set aside as a contingency fund. A rental rate of \$2,400 per store unit would be approximately \$1.10 a year for each square foot of operating space. Estimates from trade sources indicate that the average annual rent paid by wholesale dealers in the present market in 1953 ranged from \$1.00 to \$1.10 per square foot.

It should be pointed out that this indicated rental rate for these types of facilities is relatively low. Similar facilities constructed in other cities have been rented at rates considerably greater. The suggested rate is that which would be necessary to make the project self-liquidating

under the calculated cost shown. With most fruit and vegetable wholesalers, rental costs are only a small percentage of the total cost of doing business. When the proposed structure is built, if it were found that costs of materials and construction, and even land costs, had increased as much as 20 percent above the estimates given here, the increased rental rates necessary to make the project self-liquidating would still not be an unreasonable charge, as compared to rental paid for such facilities in other cities.

POTENTIAL BENEFITS FROM A NEW AND MODERN MARKET

Benefits of new and more efficient wholesale facilities in the long run would accrue to the people of San Diego, because, as consumers, they could be serviced by a lower cost system of food distribution. Although such benefits cannot be accurately measured in dollars, through the years they would be substantial.

The benefits to the city of San Diego in having well-planned fruit and vegetable wholesale marketing facilities in a new location, with the probable eventual movement of other wholesale dealers to such a location also cannot be measured in dollars, but would be significant. The present wholesale food district, which includes the fruit and vegetable stores, is a part of the downtown business district. Most existing structures in which fruit and vegetable stores are located are rather unsightly, and are not in keeping with city plans for having an attractive modern business area to serve an expanding population. When the wholesale dealers moved from these poor facilities most of the structures could be dispensed with, and the area would become attractive to other types of businesses needing modern structures in this location.

It has been shown that by charging wholesale dealers approximately the rental rates they now pay for present inefficient facilities, the suggested new facilities for wholesale fruit and vegetable dealers would become a self-liquidating project. One of the major costs of operation in this business in San Diego is the cost of labor. Data from dealers' records indicate that this labor cost may be as much as 70 percent of the total operating costs for certain types of dealers using present inefficient facilities. Dealers estimated that with new facilities in which unloading, handling, and loading operations could be done efficiently, a saving of at least \$10 per carlot equivalent would be possible. The minimum volume of business to be handled in the new facilities would be about 4,000 carlot equivalents yearly, which is approximately the volume handled in 1952 by dealers for which new stores would be provided. A saving of \$10 per carlot equivalent of 4,000 carlots would be a total of \$40,000. Dealers estimate that new facilities for receiving rail receipts, whereby rail cars could be spotted at the rear of stores and unloaded directly onto storeroom platforms, would result in a saving of \$30 per car in unloading, loading, and transportation from team tracks as practiced in 1952. In 1952 about 300 rail cars were received at team tracks by these dealers. New facilities would, therefore, result in a saving of \$9,000 in this operation.

These savings indicate that the construction of new market facilities can be economically sound, if responsible tenants are willing to commit themselves to use them. However, these figures do not include provision for the acquisition of land needed for future expansion.

WHO SHOULD BUILD AND OPERATE THE MARKET

Many groups and interests are concerned with the development of a wholesale food market center in San Diego. Wholesale dealers, producers, transportation companies, retailers, and consumers all have an interest in the more efficient distribution system that could be brought about. The city, county, and other governmental agencies have an interest in the market from the standpoint of traffic planning, zoning, enforcement of regulations with respect to inspection and sanitation, and of laws and ordinances governing the buying and selling of food products. Consumers have an interest because the lower-cost food distribution system would result in lower prices to consumers. Wholesale dealers in food products would have an opportunity to compete more successfully with other market centers, and a degree of stability would be imparted to the wholesale food business that would tend to invite an expansion of such business in San Diego.

A wholesale food market can be built and operated by: (1) A private corporation for profit; (2) a public nonprofit corporation; (3) a local governmental agency; or (4) a private nonprofit or limited profit corporation.

Many markets have been financed, constructed, and managed by private firms for profit. Usually the board of directors and management of such corporations are not wholesale dealers and handlers, and the demands for profit in the project may tend to submerge the primary motive of service to dealers and handlers and other people using the market. The management of the market may turn out to be in the interest of the owners and not in the interest of the tenants and other users, and the basic intent of having a market operate in the interest of the community may be nullified.

A public nonprofit corporation is one created by legislative action. This type of corporation has many desirable features. Some of these features are: (1) It permits all interested groups of people to participate in building, financing, and managing the market; (2) it is a nonprofit corporation, and the revenue derived cannot exceed the amounts needed to pay the costs of operation, amortize the investment, and maintain a limited reserve for contingencies; (3) it gives representation on the board of directors to governmental agencies interested in the market, consumers, dealers, and others; (4) it establishes a continuing organization; (5) it does not place a burden on taxpayers, but must pay its own way; and (6) it makes possible the use of eminent domain in acquiring a site.

Some markets have been financed, built, and managed by a State, city, or other governmental agency. A number of cities operate public wholesale and retail market places. There is a tendency, however, in recent years,

for public agencies to finance, build, and manage such a project only after all other methods of development have been ineffective. Markets operated currently by public agencies have usually been inherited from a start made many years ago when no other effective methods were available to establish market places. In recent years the feasibility of the development of wholesale marketing centers has become apparent to private and quasi-private enterprise, with the general thought being advanced that the wholesale food business should rightly pay its own way and not be an object of possible public subsidy. For the type of market described as a possibility in San Diego, its feasibility should tend to attract private capital and public agencies may see fit to participate in the project in a technical and advisory capacity only.

A private nonprofit or limited profit corporation could be created to construct, finance, and manage the wholesale food market in San Diego. This type of corporation should have the following features: (1) All interested groups operating in the market should be represented on the board of directors; (2) profits of the corporation owning the facility should be limited to a fixed amount or eliminated entirely; (3) a continuing organization should be provided; (4) ownership of the corporation should always be retained by operators in the market; and (5) if possible, representation of the city or State should be permitted on the board of directors.

It might be possible to acquire land suitable in size for a wholesale food center under two separate financial approaches. The facilities and land of the $5\frac{1}{2}$ acre development would constitute a separate unit of operation and investment, the revenue from which would pay for that development. If 30 acres were originally acquired, the remaining undeveloped $24\frac{1}{2}$ acres could be bought through a different method of financing. It might be acquired on contract with only interest and taxes to be paid for a period of years, with no repayment of investment during those years. In the future when the demand from other wholesale handlers for space occurs, space could be leased or sold outright, the monies received being used to retire the original capital investment. If the original purchase price is reasonable, increased land values, especially within a city with a rapidly expanding population such as San Diego, tend to make this type of investment attractive. Land, without improvements, usually has a relatively low tax payment and land is excellent security for a loan at a relatively low interest rate. The major precaution necessary is that the purchase of the land must not be at a figure that includes all potential future values.

The success of a new market development in San Diego will depend on its use by a majority of the wholesale dealers doing business in the present inefficient facilities. The suggested building to accommodate wholesale dealers in fresh fruits and vegetables is of a size to provide efficient facilities to handle the volumes of business done by the dealers who will remain in the present facilities. All space in the suggested new market building must be rented to make the project economically feasible.

Active participation of dealers and other interested parties in a new market development will depend mainly upon the extent to which they can

become informed as to specific proposals presented in a definite manner for their consideration. Most of the fruit and vegetable wholesale dealers were aware that their facilities were inadequate and inefficient. Certain dealers who had resources above the average were doing something about it. Certain handlers of meat and meat products realized that, although their facilities were not grossly inefficient, they were becoming inadequate to handle the increasing volumes of business. Dry grocery warehousing in multiple-story buildings was apparently meeting serious competition from one-level warehouse operations. In general in the wholesale food business and especially in the fruit and vegetable business, it is probable that the specific lack of interest in a new market development may be attributed to the fact that at the time of the survey no concrete or specific proposals had been brought to their attention. Initiative is needed in the development and presentation of specific proposals to the wholesalers. The possible benefits that could accrue to the individual firms by their use of efficient facilities as outlined previously are specific and tangible and when wholesalers become informed as to the details it is probable that good business judgment will bring about great interest and cooperation.

In the course of the study none of the wholesale dealers or others who would use the market were interested to the extent that they would assume the responsibility for building, financing, and operating a market. The assumption of leadership and guidance for the project by a local civic-minded agency or group of people appears necessary. After an agency, such as the San Diego Chamber of Commerce, which has shown an interest, has done the educational and informational work necessary to generate active interest on the part of wholesale dealers, it could render service and guidance to the specific agency or corporation, either public or private, that was decided upon as the best to build, finance, and operate the wholesale food market center.

MASTER PLAN FOR A WHOLESALE FOOD CENTER

A master plan for a wholesale food center for a large city is shown in figure 5, as an illustration of the principles previously discussed. The structures illustrated include wholesale stores for dealers in fruits and vegetables, meats, poultry and eggs, and frozen foods, as well as a refrigerated warehouse, dry storage warehouses, and other types of facilities for allied industries which could be located in a wholesale food center. This plan illustrates an advantageous arrangement of structures in relation to each other as well as to streets, parking areas, railroads, expansion areas and fences.

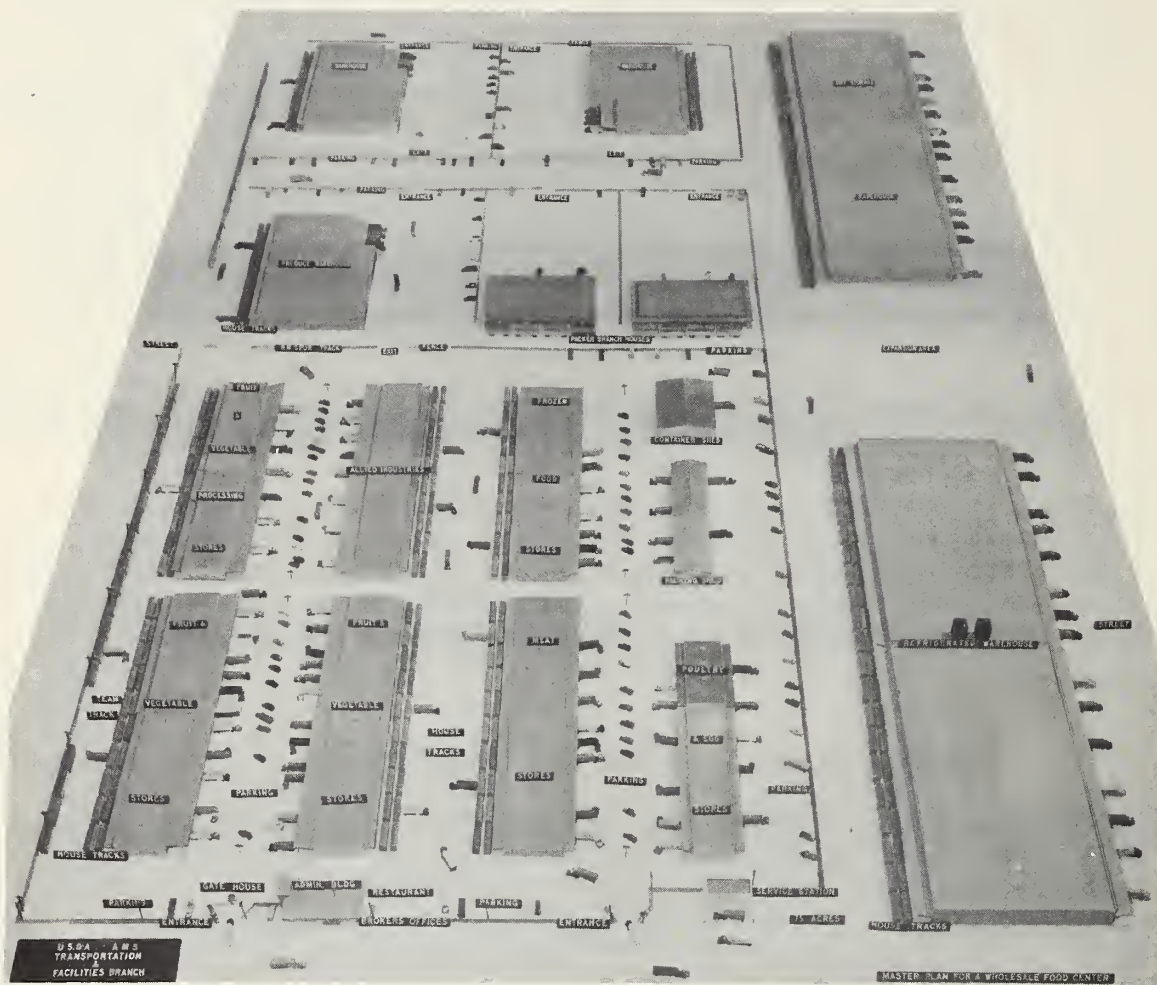


Figure 5.--A photograph of a scale model of a master plan for a wholesale food market center.



